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100 NEW TYPES OF ROAD AND CONSTRUCTION MACHINERY TO BE PRODUCED IN 1949; SEVERAL PLANTS CRITICIZED

Enterprises of the Ministry of Construction- and Road-Machine Building are meeting and surpassing planned production quotas.

Of the total volume of production for the Five-Year Plan 46.7 percent was to be completed in 3 years, 1946 - 1948. Actually, 58.9 percent of this total has been fulfilled during this period.

Machinery output by the enterprises of the Ministry greatly exceeded the prewar level in 1949. This was especially true in the case of such important machinery as excavators, cranes, scrapers, and bulldozers.

In 1949 alone, the country will receive from the machine-building industry almost as many excavators as existed in the entire national economy in 1940.

In 1949, the enterprise of the Ministry must master production of more than 100 new types of machinery for further complex mechanization of different types of construction work, especially such labor-consuming processes as earthwork, hoisting, transport, loading and unloading, and finishing work.

For full mechanization of earthwork in industrial and civil engineering, housing, and road construction there is still a deficiency of many types of machinery, and in particular, of pit and special excavators, trench diggers, and heavy scrapers.

In the interests of eliminating this deficiency, a rotor excavator for digging trenches for laying cables will be put into use in 1949. Production of chain-bucket excavators for digging trenches 2.5 meters deep for laying sewage and water pipes will be started. Chain-bucket excavators with buckets of 30-liter capacity for transverse excavating in clay banks, sand and gravel quarries, and also special excavators for irrigation work will be produced.

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In the line of one-bucket excavators, production of excavator cranes with a bucket of .25 cubic meter of a pneumatically driven wheel will be undertaken, and the output of various types of interchangeable equipment for one-bucket excavators -- shovels, grab buckets, crane and pile-driver equipment -- will be increased. This will greatly increase the use of one-bucket excavators under varied construction conditions.

Production of heavy-duty tractor scrapers with a capacity of 15 cubic meters of grader-elevators will be started in 1949 for mechanization of earth work in large-scale road construction and hydroengineering work.

Production of earth-hauling carts with a capacity of 10 - 12 cubic meters, and mechanized dumping, to be hitched to an S-80 tractor has been planned.

For increased mechanization of hoisting and unloading operations, plans will be executed in 1949 to produce railroad cranes of 25 tons lifting capacity, and to start production of .75-ton, full-circle jib cranes with a 20-meter boom designed by Engineer Sokolovskiy for erection of tall buildings. Experimental models of such cranes were successfully operated in 1948 in construction in Moscow.

There must be greater use of derrick cranes. In addition to the 5-ton guy derrick, production of 15- and 25-ton guy derrick cranes will be undertaken. Series production of one-bucket loaders for S-80 tractors will be organized.

Road machinery planned for 1949 will make possible almost complete mechanization of construction and repair of asphalt-concrete, and tar-roads. In addition to series production of machinery for this purpose, production of self-propelled asphalt-concrete pouring machines will begin in 1949.

Portable bitumen heating and distributing machines, self-propelled machines for heating and breaking up old asphalt paving, equipment for turning old asphalt-concrete paving into blocks, automatic thermic and repair machines with electrified equipment for repair of asphalt roads, 9- to 12-ton motor rollers of the tandem type, and 15-ton rollers with a third subsidiary roller for smooth rolling of asphalt paving will also go into production.

Complex equipment for machine pouring, spreading, and finishing of cement and concrete paving, smoothing out and cutting of seams, and cutting of the track slots will also be produced in 1949.

In the near future, a large number of stone quarries must be mechanized in the interests of boosting the output of stone, turning quarrying into a large-scale branch of the construction industry. Level of mechanization in the stone quarries must be brought up to the level of mechanization of open-pit mining of ore, limestone, and coal.

Production of equipment for plant manufacture of a line of new construction materials and parts will be organized in 1949. Complex equipment for plants producing dry gypsum plaster, plants producing corrugated asbestos slate, and equipment for plants making hollow concrete joists of the "flooring joist" types will be produced. Plants manufacturing insulating mats of slag cotton, brick, tile, ceramic blocks and pipes, and slag blocks will also get new equipment.

Labor-consuming finishing work, particularly plastering and painting, is very insufficiently mechanized at present. The All-Union Scientific Institute of Road Construction Machinery has been commissioned to devise special machinery for mechanization of solution feed and application onto the surface being plastered. Small portable machines will be manufactured for mechanizing painting. They will consist of an air compressor, small tanks and spray guns with interchangeable spouts for oil painting. Use of an electric painting-control panel for water paints and glue dyes has also been planned.

The nomenclature of machinery for sanitary-engineering work is also very small. Production of machinery for bending gas pipes with diameters of up to 2½ inches, rolling pipes, and seaming air ducts will be organized in 1949. Electric vibro-cutters for cutting 1.5- to 2.7-millimeter sheet-metal creasing machines, and others will go into production.

In 1949, the plants of Glavstoyinstrument (Main Administration of Construction Tools) will start production of electric tools with higher-frequency current (200 amperes per second) weighing 1.5 - 2 times less than the usual types of electric tools. This will greatly lighten the work of the workers and increase their productivity.

Not all enterprise managers use their technical resources for the output of high-grade machinery. The Kemerovo Plant produces 425-liter concrete mixers which do not meet requirements. The Kusa Plant manufactures crushing machines of insufficiently high quality. The Nikolayevsk Road-Machinery Plant is turning out the D-106 scraper and D-149 bulldozer hydraulic-control systems of poor quality.

Labor consumption and, consequently, cost of production of some machinery is also still high.

The Ministry's 1949 technical plan specifies sharp reduction of labor-consumption in the manufacture of the following machinery: E-505 and EM-182 excavators 25 percent, E-1002 excavator 35 percent, D-157 bulldozers on S-80 tractors 40 percent, the 6-square-meter D-147 scraper 30 percent, power-driven road rollers 25 - 30 percent, and heavy graders 25 percent.

It is absolutely necessary for construction organizations to take an active part in testing the new machinery, particularly under operating conditions. Unfortunately, at best, the construction organizations limit themselves to complaints about the quality of the series-produced machines, and help little in performing real tests and finishing work on the new machinery before production.

Usage of the machinery pool still has not reached the specified level. The necessary attention is not given to training construction personnel in the handling of the machinery. Much of the machinery is of new design and extremely complicated, and requires special attention and careful handling. It is therefore necessary to strive to increase the skill of the workers.

Lack of maintenance and poor-quality repair also affect the usage of pool.

For completion of the Five-Year Plan in 1949, the enterprises of the Ministry must and will turn out during the current year 41 percent of the total volume of production specified for the 5 years.

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